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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
KIM, CHONG R	
ART UNIT	**PAPER NUMBER**
2623	18

DATE MAILED: 04/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/449,215	SAMARA ET AL.	
	Examiner	Art Unit	
	Charles Kim	2623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *13 February 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-3,6,7,11-14,17-23 and 26-32* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3,6,7,11-14,17-23 and 26-32* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *24 November 1999* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submissions filed on February 13, 2004 have been entered.

Declaration Under 37 CFR 1.131

2. The affidavit filed on February 13, 2004 under 37 CFR 1.131 has been considered but is ineffective to overcome the Alvarez reference.

The evidence submitted is insufficient to establish diligence from a date prior to the date of reduction to practice of the Alvarez reference to either a constructive reduction to practice or an actual reduction to practice. Applicant provided evidence of conception in exhibits A, B, and C, but did not provide any showing of diligence from the time of conception to either actual or constructive reduction to practice. The Examiner advises the applicant to refer to MPEP 715.07(a) and 2138.06 for further information.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1-3, 6-7, 11-14, 17-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Wood (U.S. Patent No. 5,715,823), and Alvarez (U.S. Patent No. 6,370,413), further in view of Hossack et al., U.S. Patent No. 6,511,426 ("Hossack").

Referring to claim 1, Wood discloses:

a. an image server (10) having a plurality of inputs and outputs (figure 1), the inputs configured to receive image information signals and the outputs configured to provide image output signals, the image server configured to store information representative of a plurality of two dimensional image slices and the output signals representative of the stored two dimensional image slices (col. 3, lines 3-29)

b. an imaging device (12) having an output coupled to at least one of the inputs of the image server, and configured to provide an image signal (col. 2, line 62-col. 3, line 6)

c. an image workstation (100) having an input coupled to at least one of the outputs of the image server (figure 1), and configured to receive output signals from the image server representative of selected two dimensional image slices stored by the image server (col. 3, lines 20-24), the image workstation configured to construct three dimensional image renderings from the two dimensional image slices (col. 11, line 63-col. 12, line 3. Note that the "sequence of spatially discrete images" in col. 12, line 2 is interpreted to mean image slices. Furthermore, the "physician" viewing the images is interpreted as being the user who is located at the image

workstation.) and the image workstation having an output coupled to the image server (figure 1, Note that the connection between the image server and image workstation is bi-directional).

Although Wood teaches that the image workstation sends a signal to the image server (col. 11, lines 56-63), he fails to explicitly state that the signal is representative of the three dimensional rendering. However, it would have been obvious for the image workstation to send a signal representative of the three dimensional rendering to the image server, since the image server stores all relevant patient information such as ultrasound images and patient reports (col. 12, lines 64-65). Furthermore, one would be motivated to send a signal representative of the three dimensional rendering to the image server in order to allow the most appropriate specialist who is located at a another workstation access to the file for diagnosis purposes (col. 12, lines 3-5).

Wood fails to explicitly state that the image server comprises a picture archival and communications system (PACS) server, and the image workstation comprises a PACS workstation. However, PACS servers and workstations were exceedingly well known in the art. For example, Alvarez teaches a PACS server and workstation [col. 6, lines 22-29. It is noted that Alvarez's system (10) is interpreted as being analogous to a PACS server because his system "interacts" with a PACS by sending 2D images to the PACS, in order for a physician to view the image on a workstation. Furthermore, the physician viewing the image would inherently use a PACS workstation in order to view the image received by the PACS].

Wood and Alvarez are both concerned with the management (viewing, archiving, communicating) of ultrasound images, and provide a system that includes image servers and workstations for constructing three-dimensional renderings for diagnostic purposes. Wood's

server is connected to access ultrasonic images and reports, and makes them accessible to a personal computer, terminal or workstation at a remote location (Wood, col. 3, lines 20-24). Alvarez's PACS system increases flexibility by allowing older systems to access the images on the image server (Alvarez, col. 6, lines 22-29). The ordinary artisan would have been motivated to combine the teachings of Wood and Alvarez in order to provide a system that can interact with a plurality of medical imaging workstations, thereby increasing the efficiency and flexibility of the diagnosis process. Therefore, it would have been obvious to combine the teachings of Wood and Alvarez so that the two dimensional images are stored on a PACS server, and are communicated to a PACS workstation, and 3D rendering is performed on the PACS workstation.

Wood and Alvarez both fail to teach that the image slices are in the DICOM3 format. However, the applicant's specification (page 5, lines 7-8) states that other image file formats are equally applicable. In this case, Wood teaches that the image slices are in JPEG format. Wood explains that the JPEG format was commonly used for improving the transmission time of patient images (Wood, col. 10, lines 5-7). Therefore, it would have been obvious to utilize the JPEG format for the image slices, in order to transmit the patient images in a quick and efficient manner, thereby improving the diagnosis process.

Wood and Alvarez both fail to teach that the three dimensional renderings are constructed by maximum intensity pixel projection. The Examiner notes that maximum intensity pixel projection was exceedingly well known in the art. For example, Hossack teaches a PACS system for constructing three dimensional renderings by utilizing the maximum intensity pixel projection technique (col. 19, lines 46-49 and col. 41, lines 57-61). Hossack also teaches that the image slices are in the DICOM format (col. 9, lines 21-24).

Wood, Alvarez, and Hossack are all concerned with the management of ultrasound images for constructing three dimensional renderings. Hossack provides a versatile method for processing ultrasound data that reduces speckles in three dimensional images (Hossack, col. 2, lines 30-36). Therefore, it would have been obvious to modify the three dimensional renderings of Wood and Alvarez, so that the renderings are constructed by utilizing the maximum intensity pixel projection technique as taught by Hossack, in order to improve the diagnosis process by providing the doctor with an accurate three dimensional image of the patient under examination.

Referring to claim 2, Alvarez further discloses that the PACS server stores a three dimensional rendering signal as a three dimensional rendering file (col. 5, lines 41-48. Note that the "viewing parameters" in line 41 is interpreted as being analogous to the three dimensional rendering signal, and the "bookmark" in lines 42-43 is interpreted to mean the three dimensional rendering file).

Referring to claim 3, Alvarez further discloses that the three dimensional rendering file may be selectively communicated to a physician using a PACS workstation (col. 6, lines 24-29).

Referring to claim 6, Wood further discloses that the imaging device (12) is a medical (ultrasound) imaging device (col. 2, lines 63-67).

Referring to claim 7, Alvarez further discloses that the PACS server includes a three dimensional rendering file storage (col. 5, lines 41-42 and figure 1. As noted above, the "bookmark" is interpreted to mean the three dimensional rendering file).

Referring to claim 11, Hossack further discloses that the three dimensional rendering is performed by volume rendering (col. 19, lines 46-47).

Referring to claim 12, Alvarez further discloses a three dimensional rendering by surface rendering (col. 5, lines 21-23).

Referring to claim 13, Alvarez further discloses a three dimensional rendering file (bookmark) as disclosed above, that includes the parameters needed to reconstruct the three dimensional image rendering (col. 5, lines 21-25).

Referring to claim 14 see the rejection of at least claim 1 above. Wood discloses a method of producing a rendering of a three dimensional object from a plurality of two dimensional image information files, comprising:

a. receiving by an image manager (10), a plurality of two dimensional image information files from an imaging device (12) (col. 2, line 63-col. 3, line 9)

b. storing a plurality of two dimensional image files on the image manager (col. 3, lines 3-6)

c. communicating selected two dimensional image information files to an image workstation (100) (col. 3, lines 17-24 and figure 1)

d. receiving a two dimensional image information file by the image workstation (col. 3, lines 17-24).

Although Wood teaches that a three dimensional presentation is displayed at an image workstation (col. 11, line 63-col. 12, line3), he fails to explicitly state that a three dimensional image file is constructed. However, Wood teaches that the image workstation is a computer with a monitor (col. 3, lines 30-33 and figure 1). Therefore, since it was well known for computers to construct an image file before displaying an image (presentation) on a monitor, it would have

been obvious to construct a three dimensional image file during the display of the three dimensional presentation at the image workstation.

Wood fails to explicitly disclose communicating the three dimensional image information files to the image server. However, as disclosed above, it would have been obvious to communicate the three dimensional image information file to the image server, since the image server can send or receive image information from the image workstation (col. 11, lines 59-61), and stores all relevant patient information such as ultrasound images and patient reports (col. 12, lines 64-65). Furthermore, one would be motivated to send the three dimensional image information files to the image server in order to allow the most appropriate specialist who is located at another workstation access to the file for diagnosis purposes (col. 12, lines 3-5).

Wood fails to explicitly state that the image server comprises a picture archival and communications system (PACS) server, and the image workstation comprises a PACS workstation. However, PACS servers and workstations were exceedingly well known in the art. For example, Alvarez teaches a PACS server and workstation [col. 6, lines 22-29. It is noted that Alvarez's system (10) is interpreted as being analogous to a PACS server because his system "interacts" with a PACS by sending 2D images to the PACS, in order for a physician to view the image on a workstation. Furthermore, the physician viewing the image would inherently use a PACS workstation in order to view the image received by the PACS].

Wood and Alvarez are both concerned with the management (viewing, archiving, communicating) of ultrasound images, and provide a system that includes image servers and workstations for constructing three-dimensional renderings for diagnostic purposes. Wood's server is connected to access ultrasonic images and reports, and makes them accessible to a

personal computer, terminal or workstation at a remote location (Wood, col. 3, lines 20-24). Alvarez's PACS system increases flexibility by allowing older systems to access the images on the image server (Alvarez, col. 6, lines 22-29). The ordinary artisan would have been motivated to combine the teachings of Wood and Alvarez in order to provide a system that can interact with a plurality of medical imaging workstations, thereby increasing efficiency and flexibility. Therefore, it would have been obvious to combine the teachings of Wood and Alvarez so that the two dimensional images are stored on a PACS server, and are communicated to a PACS workstation, and 3D rendering is performed on the PACS workstation.

Referring to claim 17, see the rejection of at least claim 1 above.

Referring to claim 18, see the rejection of at least claim 6 above.

Referring to claim 19, Wood further discloses that the communicating step is carried out over an Ethernet connection (col. 11, line 17).

Referring to claim 20, see the rejection of at least claim 2 above.

Referring to claim 21, see the rejection of at least claim 3 above.

Referring to claim 22, see the rejection of at least claim 13 above.

4. Claims 1, 6, 14, 17, 18, 23, 27, 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Udupa et al., U.S. Patent No. 5,812,691 ("Udupa") and the article entitled "Concurrent Processing for Picture Archiving and Communication System (PACS)" by Chong et al., ("Chong").

Referring to claim 1, Udupa discloses an image management system comprising:

a. a picture archival and communications system (PACS) server (110) having a plurality of inputs and outputs, the inputs configured to receive information signals and the outputs configured to provide image output signals, the PACS server configured to output signals representative of a plurality of two dimensional image slices (col. 22, lines 1-6 and figure 5. Note that the PACS network includes a PACS server)

b. an imaging device (100) having an output coupled to at least one of the inputs of the PACS server, and configured to provide an image signal (figure 5)

c. a PACS workstation (120) having an input coupled to at least one of the outputs of the PACS server, and configured to receive output signals from the PACS server representative of selected two dimensional image slices, the PACS workstation configured to construct three dimensional image renderings from the two dimensional image slices by maximum intensity pixel (MIP) projection (col. 20, lines 46-57 and col. 22, lines 1-25 and figure 5).

Udupa does not explicitly state that the PACS server (110) stores the information representative of the plurality of two dimensional image slices. However, the Examiner notes that this feature was exceedingly well known in the art. For example, Chong discloses a PACS server that stores information representative of a plurality of two dimensional image slices (page 471, bottom of the right column).

Udupa also does not explicitly disclose that the PACS workstation has an output coupled to the PACS server, and is configured to provide the PACS server with a signal representative of the three dimensional rendering. Chong teaches a PACS workstation that has an output coupled

to a PACS server and is configured to provide the PACS server with a signal representative of a three dimensional rendering (page 471, right column).

Udupa and Chong both fail to teach that the image slices are in the DICOM3 or DEFF format. However, the applicant's specification (page 5, lines 7-8) states that other image file formats are equally applicable. In this case, Chong teaches that the image slices are in JPEG format. Chong explains that the JPEG format was commonly used for improving the transmission time of patient images (Chong, page 468). Therefore, it would have been obvious to utilize the JPEG format for the image slices, in order to transmit the patient images in a quick and efficient manner, thereby improving the diagnosis process.

Udupa and Chong are both concerned with constructing three dimensional image renderings on a PACS system. Chong improves the system response time and thereby enhances the efficiency of the PACS system (Chong, page 468). Therefore, it would have been obvious to combine the teachings of Udupa and Chong, in order to enhance the efficiency of the PACS system.

Referring to claim 6, Udupa further discloses that the imaging device (100) is a medical imaging device (figure 5).

Referring to claim 14, see the second rejection of at least claim 1 above. Udupa discloses a method of producing a rendering of a three dimensional object from a plurality of two dimensional image information files, comprising:

a. receiving by a PACS server, a plurality of two dimensional image information files from an imaging device (col. 22, lines 1-6 and figure 5. Note that the PACS network includes a PACS server)

b. communicating selected two dimensional image information files to the PACS workstation (col. 22, lines 1-25 and figure 5)

c. receiving a two dimensional image information file by the PACS workstation (col. 22, lines 1-25 and figure 5)

d. constructing a three dimensional image information file based on the selected two dimensional information information files by maximum intensity pixel (MIP) projection (col. 20, lines 46-57 and col. 22, lines 1-25 and figure 5).

Udupa does not explicitly state that the PACS server (110) stores the plurality of two dimensional image information files. However, the Examiner notes that this feature was exceedingly well known in the art. For example, Chong discloses a PACS server that stores a plurality of two dimensional image information files (page 471, bottom of the right column).

Udupa also does not explicitly disclose the step of communicating the three dimensional image information file to the PACS server. Chong teaches the step of communicating a three dimensional image information file to a PACS server (page 471, right column).

Udupa and Chong both fail to teach that the image information files are in the DICOM3 or DEFF format. However, the applicant's specification (page 5, lines 7-8) states that other image file formats are equally applicable. In this case, Chong teaches that the image information files are in JPEG format. Chong explains that the JPEG format was commonly used for improving the transmission time of patient images (Chong, page 468). Therefore, it would have been obvious to utilize the JPEG format for the image information files, in order to transmit the patient images in a quick and efficient manner, thereby improving the diagnosis process.

Udupa and Chong are both concerned with constructing three dimensional image renderings on a PACS system. Chong improves the system response time and thereby enhances the efficiency of the PACS system (Chong, page 468). Therefore, it would have been obvious to combine the teachings of Udupa and Chong, in order to enhance the efficiency of the PACS system.

Referring to claim 17, Udupa further discloses the step of receiving a plurality of two dimensional image slices by the PACS workstation (col. 22, lines 1-25 and figure 5).

Referring to claim 18, Udupa further discloses that the imaging device (100) is a medical imaging device (figure 5).

Referring to claim 23, see the second discussion of at least claim 1 above. Udupa discloses:

a. a medical scanner (100) (figure 5)

b. a PACS server (110) coupled to the medical scanner and configured to receive signals representative of two dimensional image slices from the medical scanner (col. 22, lines 1-6 and figure 5. Note that the PACS network includes a PACS server)

c. a PACS workstation (120) configured to receive selected signals representative of two dimensional image slices and configured to construct a three dimensional rendering file from the signals representative of the two dimensional image slices (col. 22, lines 1-25 and figure 5).

Udupa does not explicitly state that the PACS server (110) stores the signals representative of two dimensional image slices. However, the Examiner notes that this feature was exceedingly well known in the art. For example, Chong discloses a PACS server that stores signals representative of two dimensional image slices (page 471, bottom of the right column).

Udupa also does not explicitly disclose that the three dimensional rendering file is communicated to and stored by the PACS server. Chong teaches that a three dimensional rendering file is communicated to and stored by the PACS server (page 471, right column).

Udupa and Chong are both concerned with constructing three dimensional image renderings on a PACS system. Chong improves the system response time and thereby enhances the efficiency of the PACS system (Chong, page 468). Therefore, it would have been obvious to combine the teachings of Udupa and Chong, in order to enhance the efficiency of the PACS system.

Referring to claim 27, Udupa further discloses that the medical scanner is a magnetic resonance imaging (MRI) device (figure 5).

Referring to claim 29, Udupa further discloses that the PACS workstation includes a display (figure 5).

5. Claims 23, 26-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Wood (U.S. Patent No. 5,715,823) and Alvarez (U.S. Patent No. 6,370,413).

Referring to claim 23, see the discussion of at least claims 1 and 2 above. Wood discloses:

a. a medical scanner (12) (col. 2, line 62-col. 3, line 6)

b. an image server (10) coupled to the medical scanner and configured to receive and store signals representative of two dimensional image slices from the medical scanner (col. 3, lines 3-29)

c. an image workstation (100) configured to receive selected signals representative of two dimensional image slices (col. 3, lines 20-24) and configured to construct a three dimensional rendering file from the signals representative of the two dimensional image slices (col. 11, line 63-col. 12, line 3. Note that the "sequence of spatially discrete images" in col. 12, line 2 is interpreted to mean the two dimensional image slices. Furthermore, the "physician" viewing the images is interpreted as being the user who is located at the image workstation).

Although Wood teaches that the image workstation sends a signal to the image server (col. 11, lines 56-63), he fails to explicitly state that the signal is representative of the three dimensional rendering file. However, it would have been obvious for the image workstation to send a three dimensional rendering file to the image server, since the image server stores all relevant patient information such as ultrasound images and patient reports (col. 12, lines 64-65). Furthermore, one would be motivated to send a signal representative of the three dimensional rendering to the image server in order to allow the most appropriate specialist who is located at a another workstation access to the file for diagnosis purposes (col. 12, lines 3-5).

Wood fails to explicitly state that the image server comprises a picture archival and communications system (PACS) server, and the image workstation comprises a PACS workstation. However, PACS servers and workstations were exceedingly well known in the art. For example, Alvarez teaches a PACS server and workstation [col. 6, lines 22-29. It is noted that Alvarez's system (10) is interpreted as being analogous to a PACS server because his system "interacts" with a PACS by sending 2D images to the PACS, in order for a physician to view the image on a workstation. Furthermore, the physician viewing the image would inherently use a PACS workstation in order to view the image received by the PACS].

Wood and Alvarez are both concerned with the management (viewing, archiving, communicating) of ultrasound images, and provide a system that includes image servers and workstations for constructing three-dimensional renderings for diagnostic purposes. Wood's server is connected to access ultrasonic images and reports, and makes them accessible to a personal computer, terminal or workstation at a remote location (Wood, col. 3, lines 20-24). Alvarez's PACS system increases flexibility by allowing older systems to access the images on the image server (Alvarez, col. 6, lines 22-29). The ordinary artisan would have been motivated to combine the teachings of Wood and Alvarez in order to provide a system that can interact with a plurality of medical imaging workstations, thereby increasing the efficiency and flexibility of the diagnosis process. Therefore, it would have been obvious to combine the teachings of Wood and Alvarez so that the two dimensional images are stored on a PACS server, and are communicated to a PACS workstation, and 3D rendering is performed on the PACS workstation.

Referring to claim 26, see the first discussion of at least claim 6 above.

Referring to claims 27 and 28, Alvarez further discloses that the imaging system can be based on MRI or CT modalities (col. 7, lines 63-65).

Referring to claim 29, Wood further discloses that the image workstation includes a display (element 108 in figure 1).

Referring to claim 30, see the discussion of at least claim 29 above.

Referring to claim 31, see the discussion of at least claim 3 above.

Referring to claim 32, see the discussion of at least claim 13 above.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles Kim whose telephone number is 703-306-4038. The examiner can normally be reached on Mon thru Thurs 8:30am to 6pm and alternating Fri 9:30am to 6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amelia Au can be reached on 703-308-6604. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ck
March 18, 2004

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